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### **REMARKS**

The present response is intended to be fully responsive to all points of objection and/or rejection raised by the Examiner and is believed to place the application in condition for allowance. Favorable reconsideration and allowance of the application is respectfully requested.

Applicants assert that the present invention is new, non-obvious and useful. Prompt consideration and allowance of the claims is respectfully requested.

#### **Status of Claims**

Claims 1-2, 4-9, 11-27 and 29-32 remain pending in the application. Claims 3, 10 and 28 have been cancelled without prejudice or disclaimer. In making this cancellation without prejudice, Applicants reserve all rights in these claims to file divisional and/or continuation patent applications. Claims 1-2, 4-9, 17, 22, and 27 have been amended. Applicants respectfully assert that the amendments to the claims add no new matter.

# **CLAIM REJECTIONS**

# 35 U.S.C. § 102 Rejections

In the Office Action, the Examiner rejected claims 1, 3-10, 12-17, 19-22, 24-28 and 30-32 under 35 U.S.C. § 102(e), as being anticipated by US Patent Number 7,106,803 to Hsu. (hereinafter "Hsu").

Applicants respectfully traverse the rejections of the claims in view of the remarks that follow.

As is well established, in order to successfully assert a *prima facie* case of anticipation, the Examiner must provide a single prior art document that includes every element of the claim being rejected. Applicants respectfully submit that Hsu does not teach or suggest all elements of claims 1, 3-10, 12-17, 19-22, 24-28 and 30-32.

Hsu discloses a receive baseband processor in which each received signal encounters <u>two parallel demodulation pathways</u> (see column 7 lines 4-25). Fig. 3 of Hsu clearly shows that any received signal encounters <u>both</u> the first demodulation pathway (elements 330, 335, 340 and 345) <u>and</u> the second demodulation pathway

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(elements 350, 355 and 360). It is further clear from Fig. 3 of Hsu that the selection (by element 370) is made after both demodulation paths have been encountered.

Accordingly, it is clear that Hsu does not teach "a physical layer controller able to configure the communication device to operate in a mode of communication selected from a first communication mode, in which the first receiver is configured to receive the data frames of the first modulation type, a second communication mode, in which the second receiver is configured to receive the data frames of the second modulation type, and an autodetection mode, in which the autodetection module is to activate either the first receiver or the second receiver", as recited by claims 1, 17 and 22.

Likewise, Hsu does not teach "configuring a communication device to operate in a mode of communication selected from a first communication mode, in which a first receiver is configured to receive data frames of the first modulation type, a second communication mode, in which a second receiver is configured to receive data frames of the second modulation type and an autodetection mode, in which an autodetection module, is able to automatically detect whether the incoming data frame is of the first modulation type or the second modulation type and to activate either the first receiver or the second receiver", as recited by claims 9 and 27.

Further, Applicants respectfully assert that the two modulation pathways disclosed by Hsu are directed to different portions of the incoming data frame (see column 7 lines 4-25) and therefore the demodulation controller (365 in Fig. 3 of Hsu) controls the selection based on which portion of the inbound frame is being demodulated (See Hsu Fig. 3 and column 7 lines 26-30) contrary to the Examiner's contention on page 5 of the office action. Applicants strongly disagree with the Examiner contention that "[t]he receiver [of Hsu] has the capability of detecting (by element 365) which type of the modulation scheme of the received signal and be able to select (DEMOD\_SELECT) which mode to be used for demodulating the received signal", as the received signal had already encountered both demodulation paths before arriving to mux element 370.

Accordingly, it is clear that Hsu does not teach "a first receiver able to receive data frames of a first modulation type; a second receiver able to receive

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data frames of a second modulation type; an autodetection module able to automatically detect whether an incoming frame is of the first modulation type or the second modulation type; and a physical layer controller able to configure the communication device to operate in a mode of communication selected from a first communication mode, in which the first receiver is configured to receive the data frames of the first modulation type, a second communication mode, in which the second receiver is configured to receive the data frames of the second modulation type, and an autodetection mode, in which the autodetection module is to activate either the first receiver or the second receiver", as recited by claims 1, 17 and 22.

Likewise Hou does not teach "receiving an incoming data frame of either a first modulation type or a second modulation type; and configuring a communication device to operate in a mode of communication selected from a first communication mode, in which a first receiver is configured to receive data frames of the first modulation type, a second communication mode, in which a second receiver is configured to receive data frames of the second modulation type and an autodetection mode, in which an autodetection module, is able to automatically detect whether the incoming data frame is of the first modulation type or the second modulation type and to activate either the first receiver or the second receiver", as recited by claims 9 and 27.

Applicants therefore assert that independent claims 1, 9, 17, 22 and 27 are allowable over Hsu. Each of dependent claims 2, 4-8, 12-16, 19-21, 24-26 and 30-32 depends, directly or indirectly, from one of independent claims 1, 9, 17, 22 and 27, and includes all the features of the claim from which it depends as well as additional distinguishing features, and is therefore allowable. Therefore, Applicants respectfully request that the Examiner withdraw the rejection of claims 1, 3-10, 12-17, 19-22, 24-28 and 30-32 under 35 U.S.C. § 102(e).

### 35 U.S.C. § 103 Rejections

In the Office Action, the Examiner rejected claims 2, 11, 18, 23 and 29 under 35 U.S.C. §103(a) as being unpatentable over Hsu in view of publication No. 2007/0118742 to Abhishek et al. (hereinafter "Abhishek").

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As discussed above, amended independent claims 1, 9, 17, 22 and 27 are patentable over Hsu. Abhishek does not cure the deficiencies of Hsu as it does not teach or suggest at least "a first receiver able to receive data frames of a first modulation type; a second receiver able to receive data frames of a second modulation type; an autodetection module able to automatically detect whether an incoming frame is of the first modulation type or the second modulation type; and a physical layer controller able to configure the communication device to operate in a mode of communication selected from a first communication mode, in which the first receiver is configured to receive the data frames of the first modulation type, a second communication mode, in which the second receiver is configured to receive the data frames of the second modulation type, and an autodetection mode, in which the autodetection module is to activate either the first receiver or the second receiver", as recited by claims 1, 17 and 22.

Further, Abhishek does not teach or suggest, at least "receiving an incoming data frame of either a first modulation type or a second modulation type; and configuring a communication device to operate in a mode of communication selected from a first communication mode, in which a first receiver is configured to receive data frames of the first modulation type, a second communication mode, in which a second receiver is configured to receive data frames of the second modulation type and an autodetection mode, in which an autodetection module, is able to automatically detect whether the incoming data frame is of the first modulation type or the second modulation type and to activate either the first receiver or the second receiver", as recited by claims 9 and 27.

Each of dependent claims 2, 11, 18, 23 and 29 depends, directly or indirectly, from one of independent claims 1, 9, 17, 22 and 27, and includes all the features of the claim from which it depends as well as additional distinguishing features, and is therefore allowable.

In view of the above, Applicants respectfully request that the rejections under 35 U.S.C. §103(a) of dependent claims 2, 11, 18, 23 and 29 be withdrawn.

APPLICANT(S):

TRAININ, Solomon B. et al.

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### CONCLUSION

In view of the foregoing amendments and remarks, the pending claims are allowable. Their favorable reconsideration and allowance is respectfully requested.

Should the Examiner have any question or comment as to the form, content or entry of this Amendment, the Examiner is requested to contact the undersigned at the telephone number below. Similarly, if there are any further issues yet to be resolved to advance the prosecution of this application to issue, the Examiner is requested to telephone the undersigned counsel.

Aside from the fee for the RCE, being requested separately, no fees are believed to be due associated with this paper. However, if any such fees are due, please charge such fees to deposit account No. 50-3355

Respectfully submitted,

Zeev Pearl

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